

To: CN=Tim Vendlinski/OU=R9/O=USEPA/C=US@EPA[]
Cc: []
Bcc: []
From: CN=Tom Hagler/OU=R9/O=USEPA/C=US
Sent: Fri 4/29/2011 7:27:02 PM
Subject: Fw: live update from ISB workshop on contaminants

Tom Hagler
Assistant Regional Counsel
U.S. Environmental Protection Agency
Region 9
75 Hawthorne Street, RC-2
San Francisco, California 94105-3901
Phone: (415)972-3945
----- Forwarded by Tom Hagler/R9/USEPA/US on 04/29/2011 12:26 PM -----

From: Karen Schwinn/R9/USEPA/US
To: Erin Foresman/R9/USEPA/US@EPA, Tom Hagler/R9/USEPA/US@EPA
Date: 01/12/2011 04:16 PM
Subject: Re: live update from ISB workshop on contaminants

Excellent - better than being there! Was that Perry Herrgesell that suggested Bruce did a diatribe? ;)

Good thing you are becoming a nutrients expert!

----- Original Message -----

From: Erin Foresman
Sent: 01/12/2011 03:54 PM PST
To: Karen Schwinn; Tom Hagler
Subject: live update from ISB workshop on contaminants

The scientists were just asked to pick their three favorite stressors. Here it is, almost verbatim. I don't know everyone (or almost any one's) last name, sorry!

3 favorite stressors

- Mike: Loss of riparian and dendritic structure from levees, reduction in delta outflows from exports, species invasion.
- John W: Loss of riparian habitat, flows in general (seasonality, magnitude, timing frequency, etc...), it's the flows stupid.
- Jon TBI: flows (seasonality, magnitude, source), fish species distribution limiting stressors, ever shifting plan for the Delta
- Vince: amount of water especially in the dry season = flow, levees and infrastructure changes, nutrients issues
- Pete: flows (entrainment), riparian structure and dendritic pattern have been lost for a long time so not so concerned here, POD is entrainment issue between 02 and 05, smelt do better in wet years with diversity of habitat and they didn't have that in 07, 08, and 09, wants to see wet years with turbid conditions to see them bounce back, entrainment a big problem for smelt at really high flows (late jan

after sequence of dry years and need to transfer water, that is right when it hits delta smelt the most and maybe that is why they didn't come back in 2010), not as concerned with sacramento salmon and their outmigration;

- Tracy: doesn't have a top 3 b/c not an expert in Delta. Has a top 1 (is a toxicologist). Removing a significant amount of high water quality and moving it around the system increasing the concentration of contaminants in the estuary. Do not leave it out of this equation.
- Cliff D: flow (altered hydrograph) – think about the importance of flow characteristics (magnitude, duration, and frequency of flow) and return regime to something more similar to the historic hydrograph, habitat restoration (lakes, off channel riparian, freshwater and salt water tidal marsh) and large scale restoration projects, nutrient loading amount and form of nutrients added to the system.
- Dick Norgaard: climate change, invasive species, how to compensate people who do not 'win' in the Delta Plan, urbanization and sprawl, decline in faith in government, education, and science
- Anke MS: alteration in flow regime, landscape look and configuration (riparian, landscape, wetland coverage, etc...), nutrients. Human ingenuity, ignorance, and greed.
- Judy: altered hydrologic regime, the master variable in river and stream systems, altered landscape (loss of wetlands, levees, urbanization), altered foodwebs (loss of diatoms, effects of invasives, changing chemistry, nutrient loading).
- Jeff M: need to return 3 functional characteristics: complexity, connectivity, hydrologic variability. Cannot separate these three functional attributes. Rigid system prone to failure. Point of diversion is a fundamental problem for future of managing Delta. Earthquakes, climate change, and point of diversion. Location of pumps.
- Steve: point of view of a salmon in the delta. Loss of shallow water rearing habitat, nonnative predators, hydrodynamics in the channels of the san Joaquin system.
- Ed: freshwater flow (timing and distribution of it), protection of endangered species, climate change
- Bruce H: what 3 things are impeding achievement of the coequal goals – 1) we don't know what the goals are (only quantitative measure of water supply reliability = more, BDCP participants walked away b/c they couldn't get 10% more than historical maxima extracted from Delta), 2) we can't define the ecological community we want to support in the Delta under potential future Delta configurations. Climate change equalizes goals because it is a threat to both. 3) Humans desire for constancy and control in the natural system. We want the same amount of water out of the Delta whether it is a wet year or a dry year. No variability whatsoever month to month year to year. Native fishes are unlikely to do well under these conditions, us maintaining our control and constancy. Constant conditions of 2 months in the summer are applied five months in the Delta – Mississippi River communities do very well there. Focusing on target fish and very little on new regime. We should focus on how new system works and we don't have that knowledge.
- Perry – notwithstanding Bruce's diatribe I feel better about the DFG report we produced than I did before I came here.
 - o Water project operations – everything from the dams, levees, diversions, to timing, magnitude, and frequency of extraction.
 - o Nitrogen ammonia cycle
 - o Invasive species and change in foodweb of zo and phytoplankton
- Victoria – agree with all things said. 3 things: 1) social problems are the biggest, we have to choose to make changes, when we decide on common goals and to collaborate, then we can get something done.
- Diana – Bruce stole my remarks about goals. We can't priority stressors without understanding what our goals are. Give me a metric and description of a goal before asking me to rank stressors. Invasives are a huge impediment to achieving coequal goals and number of types of restoration we might decide to do. Decisions CA has made over the decades about what to do where and how much water it takes has precipitated the other huge stressors (water supply). Legacy lack of regional water self sufficiency.
- Val Conner of State Water Contractors is not going to say flow but the stressors that contribute to catastrophic levee failure, nutrients and food web.

Erin Foresman
Environmental Scientist & Policy Coordinator,
US EPA Region 9 C/O Army Corps of Engineers

1325 J Street, 14th floor Sacramento, CA 95814-2922
Phone: (916) 557 5253; Fax: (916) 557 6877

<http://www.epa.gov/region9/water/watershed/sfbay-delta/index.html>